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ABSTRACT

Interviews with 588 college students found support for the proposition that sex role norms and interpersonal communication norms and patterns had influenced their occupational decision making as adolescents. Specifically, the findings showed that the adoption of the traditionally masculine sex role norm (as measured by the Bem Sex Role Inventory) by either males or females was associated with higher levels of information seeking regarding occupational choices and with the values of being in control and of being seen as competent on the job. The feminine sex role norm was related to greater flexibility of choice and the values of being of service and being free of competition. The relationships were shown to hold regardless of the gender of the adolescent. Similar relationships were found for the interpersonal communication measures. Dimensions of adolescent peer group interaction were shown to correspond to the sex role dimensions in such a way that masculinity was associated with an assertive communication style while femininity was related to a deferential style of interaction. (Author/FL)

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ADOLESCENT PEER GROUP COMMUNICATION, SEX-ROLE NORMS and DECISIONS ABOUT OCCUPATIONS

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ADOLESCENT PEER GROUP COMMUNICATION, SEX-ROLE NORMS AND DECISIONS ABOUT OCCUPATIONS

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(Paper presented at International Communication Association meetings, May, 1980 in Acapulco, Mexico)

Choosing an occupation is a critical part of growing up. Females, however, typically put off making this decision, and for some of them the consequence is inadequate training and the prospect of low-paying, low-status jobs. This study, based on face-to-face interviews with a random sample of 588 undergraduates at a large midwestern university, finds support for the proposition that sex-role norms and interpersonal communication norms and patterns influence the occupational decision-making of adolescents. This study also found that these norm sets are interrelated.

Specifically, adoption of the traditionally masculine sex-role norm (as measured by the Bem Sex-Role Inventory) by either males or females is found to be associated with higher levels of information-seeking regarding the occupational choice, and the values of being in control and of being seen as competent on the job. The feminine sex-role norm is related to greater flexibility of choice and the values of being of service and being free of competition. These relationships hold regardless of the gender of the adolescent.

Similar relationships were found for the interpersonal communication measures. Dimensions of adolescent peer group interaction were found to correspond to the sex-role dimensions in such a way that masculinity is associated with an assertive interpersonal communication style while femininity is related to a deferential style of interaction.

ADOLESCENT PEER GROUP COMMUNICATION, SEX-ROLE NORMS AND DECISIONS ABOUT OCCUPATIONS

Decisions about future roles are the stuff of adolescence. Erik Erikson (1968) has described seven different "conflicts" or dilemmas that he believes every individual is faced with resolving in the years between puberty and entrance into the work force. An adolescent typically chooses an occupation, develops a sexual identity and political ideology and develops patterns of interaction with other persons as he or she becomes more independent of parents and other authority figures. This is a large order for someone who has previously had most decisions made by parents or by fiat.

How does the prospective adult cope with the responsibility of making decisions which could shape most of the rest of his or her adult life? A number of patterns emerge. First, there are adolescents who simply ignore or refuse to make these decisions. They may succeed in resolving some of the issues, but those they ignore, according to Erikson, will continue to plague them as they come to face later dilemmas in their life.

Another pattern is that of the adolescent who, although not ignoring the issues, cannot choose among the variety of alternatives and appears to be continually waffling, never quite able to cast his or her lot in one direction rather than another.

A third typical pattern is that of the adolescent who, rather than struggle with the complexity of choices, opts for the easiest alternative (at least in the short run) which is accepting the path chosen by his or her parents.

And finally, there is the adolescent who doesn't ignore or opt out. Although not without false starts and periods of dismay and

confusion, this youth considers alternatives besides those offered by parents or tradition, experiments with them and eventually makes a choice--but a choice that may nonetheless by modified, if necessary, in the future.

Why do some adolescents emerge from this decision-making process with firm but flexible commitments to future paths while others emerge battle-scarred and confused or rigid, and perhaps unrealistic about their futures?

In the study to be described here, three of the conflicts of adolescence outlined by Erikson are examined. Specifically, this study investigates the interrelationships of occupational decision making, sex-role norms and interpersonal communication norms.

Despite a decade of successful litagation against barriers to "equal pay for equal work," women are still overrepresented in traditionally "women's jobs" such as social work, teaching, secretarial work and other service jobs. Recent estimates show that although more women are in the work force than ever before--in 1977, 48 percent of women of working age had jobs--they are still underrepresented in the corporate sector, for example.

Gender apparently continues to be a very strong predictor of what kind of an occupation a person will choose. There is also some evidence that sex is a predictor of <u>how</u> a person will go about choosing an occupation or even whether they will choose to work or not. Angrist and Almquist (1975), for example, found that females typically postpone making decisions about occupations. Some occupational choice theorists have suggested that such a pattern is "immature" and argue that failure to arrive at a "crystallized-specified choice" by a certain age reflects psychological disturbance on the part of the individual (Ginzberg, Ginsburg, Axelrad and Herma, 1951).

Two arguments which run counter to this proposition are tested in this study. First, it is proposed here that what these theorists label as "immature" behavior, i.e., not having a specific career choice by the end of high school, may actually be a very functional pattern of contingency planning or flexibility in the face of an uncertain future. This "contingency orientation" may allow a woman (or a man) to postpone making a final decision about an occupation until she/he sees how it will fit into her/his total life space, i.e., what occupation her husband (his wife) has, how many children the family will have, what level of social class will be achieved. By accepting a "male" model of occupational choice, we foreclose on the possibility that we need to change our thinking and institutions to accommodate this other, and perhaps just as "healthy" model of life planning.

Second, traditional sex roles are examined as they influence this decision-making process. It is expected that it is not so much gender or sex per se that influences the process and outcome of occupational choice, but rather the extent to which an individual adopts characteristics of one or the other sex-role norm. The adoption of sex-role norms is considered as a variable in this study in such a way that both males and females may be characterized as exhibiting sets of attributes traditionally thought to be appropriate for only one sex. The extent to which these characteristics are adopted, regardless of the gender of the adolescent, are expected to influence the occupational decision-making process. Specifically it is hypothesized here that both males and females who have adopted traditional "masculine" sex roles will be most likely to have considered

their choice of occupation in a rational way. The adoption of the traditional "feminine" sex role (by either males or females) is expected to be related to remaining flexible and open about the decision (if the decision has been made).

A third set of variables are included in this study. One of the critical tasks of adolescence is establishing friendships and patterns of interpersonal interaction with agemates. Research suggests that peers may have a great deal of impact on adolescents, especially during the college years when the youth is at least physically separated from his/her parents (Feldman and Newcomb, 1969). The behavior of interest here is the actual pattern of communication adopted in the adolescent's peer group. It is expected that the pattern of communication will correspond roughly to aspects of the sex-role norms and will be associated with similar processes and outcomes in the choice of an occupation. The interrelationships of these two norm sets are also examined to see to what extent they complement or serve as contradictory forces in the occupational decision-making process.

SEX ROLE NORMS

A growing body of evidence suggests that the adoption and assimilation of traditional sex roles is not the "healthiest" strategy for individual development as some theorists, including Erikson, would argue. Early researchers who studied the relationship of sex-role identification and various measures of psychological well-being found the women who exhibited appropriate feminine behavior were also better adjusted and had higher levels of self-confidence (Pinter and Fortano, 1944). But more recent studies, perhaps also reflecting major cultural changes, have found that high degrees of sex-typing are related to poorer adjustment in adolescent and adult women (Gall, 1969; Gove and Tudor, 1973). Webb (1963) and Cosentino and Heilbrun (1964),

for example, found that high femininity was associated with high levels of anxiety and low social acceptance for both early adolescents and college students. Mussen (1962), in one of the few longitudinal studies in the area, found that highly sex-typed men suffer as well.

Recent research, based on a changing conceptualization of the underlying structure of sex roles, has provided evidence that the most adaptive sex-role configuration for both males and females is one in which both masculine and feminine aspects, i.e., both the expressive and instrumental attributes, are embodied. This combined sex-role style, usually labeled "androgynous" is conceptually possible only when sex roles are conceived of as multidimensional--as a construct composed of two independent and orthogonal dimensions rather than as one dimension with masculine and feminine as endpoints.

Although a number of measures have been developed to test this proposal of independent dimensions (Welling, 1975, for example), Sandra Bem's Sex Role Inventory (BSRI) was one of the first (Bem, 1974) and it is now the most often used instrument. Bem, asking college students to rate themselves on 60 personality traits, 20 of which are traditionally masculine attributes, 20 feminine and 20 neutral, has found strong evidence for the existence of an "androgynous" sex role for both men and women. From data gathered on over 2,000 undergraduates from both a university and a community college, Bem found that approximately one-third of both populations could be classified as significantly sex-typed, and another third as androgynous. Fewer than ten percent could be classified as sex-reversed (Bem 1976). The categories formed by the two dimensions are diagrammed in Figure 1.

Figure 1: Sex-Role Norm Categories Based on Two Independent Sex-Role Dimensions

Feminine Dimension	Masculine Dimension: High	Masculine Dimension: Low
High	Androgynous	Feminine (sex-reversed: Males/ sex-typed: Females)
Low	Masculine (sex-reversed: Females/ sex-typed: Males)	Undifferentiated

Using the BSRI to preselect subjects for experimental treatments, Bem (1975; Bem and Lenny, 1976) also has conducted a series of studies that show support for her original hypotheses of the disadvantages of sex-typing and the advantages of androgyny.

In general, these studies have shown that androgynous men and women are able to respond appropriately to a wide variety of situations regardless of the sex-role stereotyping of the situation, or the response required of them. Both males and females who are highly sex-typed, either in the appropriate (congruent with gender) or reversed sex role do not display this flexibility of response.

The flexibility of behavior, apparently closely linked to only the androgynous sex-role configuration, is the crux of the issue. Adopting the "appropriate" sex role or even the sex role of the opposite sex appears to serve as an imposing constraint on the range of behaviors an individual will feel comfortable displaying in a variety of situations. The more flexible androgynous sex-role has been found to be related to higher levels of self-esteem, self-acceptance and acceptance of others (Eman and Morse, 1977; Wetter, 1975) in both college and high school students. Murphy and Moriarty

(1976) concluded from an intense longitudinal observation of 31 persons from infancy through adulthood that, "the best copers among boys and girls, chose with the widest range of coping resources, were those who had both 'masculine' and 'feminine' skills or resources" (p.337).

Highly masculine sex roles have also been found to be related to high levels of self-esteem for both males and females (Wetter, 1975) and high levels of independence (Berzins, 1975), assertiveness, social extroversion, and social skills (Woods, 1975). But the masculine sex-role has also been found to be related to high defensiveness (Berzins,1975).

Femine sex-typedness, however, has been found to be associated with what are usually considered "negative" characteristics. Wetter (1975) found feminine-typed women to have the lowest self-esteem. Woods (1975) found that although they were academically motivated they were also the most socially introverted. Patton, Jasnoski and Skerchock (1977), in a study of communication behavior in three-member groups, found that sex-typed females were much more submissive than any other sex-role group. They also reported that these women continued their submissive behavior even in an all-female group.

Other studies have found that sex role is related to decision-making and occupational planning. Eisenstein and Sacks (1975) found in a series of studies that the typical female role makes self-interested decision-making deeply conflictual. They found that when women were seeking to make decisions that were not "selfless" but that focused on what the woman wanted for herself, many women expressed great anxiety. Alper (1974) found that "traditionally oriented" college women told fewer success stories to the TAT cues used to measure Fear of Success than did the career or masculine-oriented women. Traditional women told stories indicating that motherhood and careers cannot be

combined and that motherhood must be valued first. In 1973, Alper had reported similar results that the more "feminine" college women were less likely to be planning on graduate school or a career (Alper, 1973).

Fitzgerald (1977), using the BSRI, measured 85 men and women actively engaged in professions of law, journalism and library science to see if their sex-role configuration matched the expected level of masculinity or femininity usually associated with the three job categories. She found that on the masculinity dimension lawyers rated highest, journalists were next highest and librarians were rated lowest,as was expected. She found no difference on level of femininity across job categories, however. She suggested that might be due to the lack of relevance of occupational choices to the feminine sex role.

In summary, analysis of the traditional dimensions of the sex roles suggests that occupational decision-making may be most closely linked with the adoption of masculine role attributes. Apparently, the feminine role does not encourage the kind of behaviors necessary for future planning. However, adoption of attributes of the feminine sex role may contribute to a more flexible kind of occupational planning.

ADOLESCENT PEER GROUPS AND COMMUNICATION

Peer orientation, as opposed to family orientation, increases between the fourth and tenth grades (Bowerman and Kinch, 1969) and continues to increase through later adolescence. A number of studies have provided evidence of the influence of peer groups on such issues as: scholastic ability (Davis, 1966); academic ability (Baur, 1967); religious beliefs (Becker, 1977); sexual behavior (Teevan, 1972;

Jessor and Jessor, 1975); drug use (Kandel, Kessler and Margulies, 1978) and educational aspiration as well as occupational choice (Wallace, 1965).

A series of studies on the influence of significant others on the educational and occupational aspirations of high school students have shown that best friends and other age-mates are consulted about future plans and have an influence on the level of aspiration (Alexander and Campbell, 1964; Duncan, Haller and Portes, 1968; Haller and Butterworth, 1960; Woelfel and Haller, 1971; and Woelfel, 1972). According to Feldman and Newcomb (1969), summarizing their review of studies on the influence of peers in the college environment, individual students are influenced by their peers in two major ways: through the provision of standards for self-judgement and by providing norms of "proper" attitudes and behavior. A number of studies which fall under the rubric of research on group dynamics (Cartwright and Zander, 1968), and based on the original conceptualizations of interpersonal influence of Sherif (1936), Lewin (Lewin, Lippitt and White, 1939) Asch (1948), and others have documented, as earlier theorists such as George Herbert Mead and Charles Horton Cooley had speculated, how an individual's group or pattern of interaction with others influences both a person's self concept and various attitudes, values and behaviors.

One behavior that appears to be affected by interpersonal interaction is the pattern of interaction itself. Working from the core assumption that communications is nonrandom, "in that form, content, direction, and other characteristics of communication are shaped by constraining forces," McLeod and Chaffee and others have shown, primarily with the family interpersonal system, that people who

interact on a regular basis establish and adhere to a set of "communication norms" or basic patterns of interpersonal communication (McLeod and Chaffee, 1972).

In a number of studies in various social settings these researchers have consistently found that there are at least two uncorrelated dimensions of communication structure in families and probably in other small group interaction situations. The first dimension they have labeled "socio-oriented." It is a communication style characterized by an emphasis on communication designed to foster harmony and pleasant social relations. The child, for instance, is encouraged to give in on arguments rather than risk offending others. The second dimension is called "concept-oriented," and describes a communication style in which interacting members are encouraged to participate in controversy and to express their ideas. Parents, for example, may encourage the child to weigh all sides of an issue before reaching a conclusion or they may expose him to counterarguments. Research on these communication patterns has shown that they are related to other kinds of communication behaviors, as well as other types of behavior.

This research suggests first, that individuals learn patterns of interaction in their families which they may then apply to other situations. And, as McLeod and Chaffee argue, this will affect their "construction of social reality," or how the person adapts to and learns from new situations. The socio-oriented person will be likely to ask questions like: "Who is involved? Do I like them? Do they like me?" The concept-oriented person will ask: "What is involved? Is it a good idea? How does it compare to what I know?" (McLeod and Chaffee, 1972, p.87).

Second, this analysis of learned constraints on behavior is strikingly similar to the patterns discussed earlier concerning sex role development, i.e., two independent sets of learned behavioral norms which are called "masculine" and "feminine". These are characterized by emphasis on instrumental and expressive personality attributes and values, respectively, and have been found to serve as constraints on an individual's subsequent behavior.

Other researchers have suggested the relationship between parental interaction and sex-role development. Baumrind (1975), for instance, concluded that independence in girls is associated with high parental demands and a lack of overprotectiveness while too much warmth and support seems to be debilitating. Bell and Ericksen (1976) had adolescent girls from 99 families describe their family system and found that girls from families that were more flexible and trusting in interpersonal lifestyle scored higher on a test of ego development.

Are these norms of interpersonal interaction simply different measures of the same underlying construct of sex-role norms or might something be gained by examining the interrelationships of these contraint systems? It seems reasonable to believe that they are associated in such a way that congruent sex-role and communication style patterns would be expected, e.g., a feminine-typed female (high expressive, low instrumental) typically interacts in a style which emphasizes the maintenance of harmony (strong socio-orientation) and deemphasizes expression of ideas (low concept-orientation). Although complete isomorphism between the two constraint systems is unlikely, some recent evidence on the form and structure of sex

differences in communication styles[1] provides support for the existence of a relationship between the constraints associated with different sex roles and those associated with different communication styles.

Greenblatt, Hasenauer and Freimuth (1977) looked at the effect of sex-typing on two interpersonal communication variables--self-disclosure and communication apprehension. Self-disclosure they defined as "verbal communication in which the person deliberately makes himself known to others and through which the person is willing to share personal, private data that reflect an honest account of inner events" (p.4). They administered the BSRI and a standard measure of tendency to self-disclose to over 300 undergraduates. They found support for their predictions: that overall, females were higher disclosers than males, but also that both males and females who had evidence of the typical feminine "expressive" sex role were more likely to self-disclose than males who were high only on the masculine "instrumental" sex role dimension.

In their companion study of communication apprehension, defined as the "withdrawal from and avoidance of oral communication as well as feelings of discomfort and tension while communicating," Greenblatt et al., found no overall sex differences, but they did find evidence that apprehension was associated with the "feminine" sex-role dimension. Feminine-typed females reported greater communication apprehension than masculine males, while androgynous males and females reported the lowest levels of apprehension. Androgynous females were less apprehensive than feminine females, while androgynous males and masculine males reported similarly low levels of apprehension.

Berzins, Welling and Wetter (1976) define masculinity as encompassing themes of social-intellectual ascendancy, autonomy and an orientation toward risk. Femininity is defined as being associated with themes of nurturance, affiliative-expressive concerns and self-subordination. They, noting that their theoretical definitions of masculinity and femininity bear, in their interpersonal aspects, "an uncanny similarity" (p.2) to the main dimensions of interpersonal behavior originally adduced by Leary (1957) and his colleagues, tested the degree of relationship between sex-role categories and the main quadrants of Leary's Interpersonal Circle with a sample of high school students. They found evidence of complementary sex role and interpersonal styles in such a way that these relationships emerged:

sex role	interpersonal behavior
Androgynous (Masculine and Feminine)	Friendly-dominant
Masculine-typed	Hostile-dominant
Feminine-typed	Friendly-submissive
Indeterminate (Neither Masculine nor Feminine)	Hostile-submissive

Patton, Jasnoski and Skerchock (1977) provide futher evidence regarding the submissive-dominant dimension examined in the Berzins et al., study. In an experimental study of communication in three-member groups (Purdue undergraduates) they found that sex-typed females engaged in more submissive acts than any other sex-role group while masculine-typed males engaged in more controlling acts. Androgynous individuals, although engaging in more dominant acts, acted submissively as well.

In sum, these studies suggest that a relationship does exist between sex role and communication styles. But do these styles and their interrelationships affect how individuals, particularly adolescents, learn and make decisions about future roles and values within their peer groups? Is there any evidence, as Chaffee and McLeod predict,

that the constraints associated with either system of communication styles or sex role (or jointly) will influence not only how a person acts in a particular situation, but also what he "gets out of" that situation? Becker (1977) provides evidence that the concept and socio-communication norms are relevent to college peer group communication and that they influence subsequent changes in religious beliefs, but he does not examine sex-role differences. Fitzgerald (1976) shows that sex-role constraints are related to occupational choice, but does not relate these constraints to communication norms.

Montogomery and Burgoon (1977), however, in a series of experimental studies on the effect of sex role on attitude change, found that sex-typed females were more persuasible than sex-typed males and that this difference was greater than the difference between nontraditional males and females (androgynous, sex-reversed and intermediate groups). Bem (1975) also has shown that conformity behaviors tends to be associated with the "feminine" sex role. These latter two studies come closest to examining the interrelationships of the two constraint systems.

Only one other study appears to be relevant to the question and it has obvious inadequacies. Sacks and Eisenstein (1976) set up and observed 15 women interacting in a small group whose goal was to encourage women to define areas in which they needed to make decisions and then make those decisions. Although the study may be criticized for lack of methodological rigor, some of the findings are intriguing. Based on the assumption that making autonomous decisions about important issues is a more "appropriate" activity for men than women, and on previous research (Eisenstein and Sacks, 1975) that showed that the woman's role makes self-interested decision-making conflictual, the

authors found that within the context of other women also making self-interested dicisions, the women in their group were able to define and resolve decisions in various life areas. Almost all the women (13) cited work, school, and career as the area they needed to make decisions about. An equal number said they found interaction with the other participants worthwhile because they got ideas and advice as well as "support" from the others. One woman's comment is particularly germane to this discussion. She said, "I listened to other women and their way of handling change" (p.17).

This is the notion to be pursued here. Are the constraints associated with sex roles reinforced by communication constraints or can they be modified in relation to communication norms? Can some of the ubiquitous differences between male and female development be accounted for through an interaction of typical communication norms and sex-role learning which result in the inhibition of life-planning by women and (and men)? What is the effect of sex-role norm constraints and communication norm constraints on future decision-making?

STUDY DESIGN

Sample

During October 1975, 597 students at a large midwestern university were personally interviewed by students from a communication research methods course who were trained in interviewing techniques. The 597 completed interviews, which took an average of an hour to complete, represented a 85 percent response rate for the sample of undergraduates. The systematic propability sample was drawn within the population of each of the four classes (freshmen, sophomore, junior and senior) to insure proportional representation of each group.[2]

Measures

A series of measures of the focal criterion variables of occupational decision-making and the two sets of independent variables, sex-role and interpersonal communication norms, were included in the interview schedule.

Occupational Decision-Making Variables

A number of measures of occupational decision-making were constructed. The first two measures were based on work done by Marcia (1966) which drew directly from Erikson's discussion of the necessity for both crisis and commitment in the process of successful identity formation. Marcia, however, gathered his data through semi-clinical open-ended interviews. Since this format was not feasible with the large sample interviewed here, close-ended questions were developed.

Degree of information-seeking. To assess the degree to which the respondent had explored alternative occupations, he or she was asked to say how often he or she had talked with a counselor, been tested by someone regarding occupational values and interests, spoken with someone in the occupation, or read about certain occupations to determine requirements, etc. Another item that was highly correlated with these measured the respondent's own perception of his or her extent of knowledge regarding the occupation "you will probably enter after you finish your education." This was included in the final index that was formed by summing over the five items. The reliability coefficient alpha that assesses the internal reliability of the index was .55.

Degree of choice flexibility. To form an index of the degree to which the respondent was willing to change his or her occupational plans, a series of questions were asked concerning how likely it was that things like "shifts in the availability of jobs," finances, children, parents or attitudes of friends and spouse would "alter or change what you plan

to be doing in the next five to ten years." It was assumed that those who said they were likely to change for any of these reasons were more flexible in their occupational planning than those who said they were unlikely or very unlikely to change. The internal reliability of this index (alpha) was .62.

Degree of traditionalness. Although the specific kind of occupation chosen is not the central issue of this study, previous studies (Fitzgerald, 1977) suggested that sex-role and communication norms may be related to the kind of occupation chosen. From a societal perspective also it is important to see if these sex roles constrain women and men to chose from only a limited range of "appropriate" or sex-typed occupational categories. A small number of occupations consistently are considered traditionally "female occupations" i.e., nursing, secretarial work, teaching. These occupations are staffed primarily by women. There are also a larger number of "traditionally" male occupations such as medicine, law, business, engineering. Are these occupational sex distributions perceived by students choosing an occupation? Are those who have adopted traditional sex roles more constrained by these perceptions of "appropriateness" than those students who have adopted other varieties of sex roles?

To test this question, the students' choice of future occupation was coded according to the percentage of workers of their sex in that job as documented by the 1970 Census. This coding scheme has been used before with interesting results (Tangri, 1972 and Bielby, 1976). It is coded so that if a female student says she is going to be a nurse, for example, she will be scored as a 94 or high traditional because 94 percent of the nurses in 1970 were women. If she chose to

be a lawyer, on the other hand, she would be scored as a low-traditional 5 because only five percent of the lawyers in 1970 were female. Conversely, men aspiring to be nurses would be coded as 6 or low on the traditional scale and future lawyers would be coded 95, high on the traditional scale.

Occupational values. To gain a clearer understanding of the students' perceptions of their future and how these are related to sex role and communication norms the students were asked to tell how important on a 5-point scale they thought each of a list of 15 items would be to them in the period 10 to 15 years after they graduated. These 15 items were factor analyzed and five factors emerged (see table 1). These factors represented the values of being competetent (four items: 2,f,h,i): being of service to other people and the community (three items: b, d, o); having control over own life and situations (two times: a,c); being free to do own thing without worrying about competence or fitting in (three items: j,k,l); and gaining rewards such as leisure time and money (three items: g,m,n).

Independent Variables

Degree of masculinity and femininity. Following from Bem's lead in developing a measure of dimensions of sex roles, a number of alternative measurement instruments have been developed (Welling, 1975 for example). But, the majority of studies that have been conducted to investigate the "new" conceptualization have continued to use the original Bem Sex-Role Inventory or BSRI (Bem, 1974). The instrument has been shown to have high internal consistency. The BSRI was used in this survey in a self-administered portion of the interview schedule.

Interpersonal communication concept and socio-orientation. Each respondent was asked to think about "your close friends here in town." Each was asked a series of questions to describe these friends that

included two questions designed to parallel the dimensions of interpersonal communication constraint that McLeod and Chaffee (1972) had found in the family environment. Respondents were asked to specify on a five-point scale "how much emphasis there is on the following things when you are talking about various topics with your friends." The socio-dimension was measured by their response to the statement: "emphasis on not hurting anyone's feelings." The concept-orientation was assessed with the item: "emphasis on developing specific arguments."

Frequency of discussion regarding sex-roles and career plans. Respondents, also were asked to report the frequency (on a five-point scale) of discussion with their friends about sex-role issues and job or career plans. These two items were summed to form an index of frequency of discussion with the peer group. This was included as a measure of the salience of decision-making about future roles in the peer group.

Frequency of disagreement regarding sex roles and career plans. Students similarly were asked to specify the frequency of disagreement about sex roles and job and career plans in their peer group. Again, these two content areas were summed across to provide a summary index of frequency of disagreement. Rossi (1966) had specified both frequency of discussion and specification of content areas discussed as two major attributes of the interpersonal environment of the college peer group. The frequency of disagreement was included both to supplement understanding of the peer group communication structure and to investigate its relation to the concept-norm dimension described above. It was anticipated that there should be a greater frequency of disagreement in concept-oriented peer groups.

Degree of diversity in the peer group. A number of researchers who have studied college peer groups suggest that the similarity or

dissimilarity of the members of peer groups affect how much influence the group will have on its members. Newcomb (1966) and Secord and Bachman (1964) for example, found that the peer group had a greater impact when members of the group were more similar to one another. Wallace (1966) found that students who planned to attend graduate school were most likely to have a greater number of like-sex friends who also planned to go to graduate school.

Two measures of the degree of diversity of the students' peer groups were formed. The student was asked to specify how many of his/her close friends were women and how many expected to go to grad school or professional school. Since each student was free to specify the number of people he or she considered "close friends," a percentage of women and graduate planners was formed including the respondent in the base as a way of standardizing the measure across respondents. An index of diversity was formed for both sex of friends and grad school planners by setting the 50 percent mark as maximum diversity and either 0 or 100 percent as the minimum diversity, with varying degrees of diversity in between. The final index varied from 0 to .25 to represent the curvilinear nature of the measure. It was formed by multiplying the proportion by its reciprocal. Thus, a student who said he had nine friends, five of whom are women, is scored as high diversity whereas if he has all female friends he is scored low on diversity. The expectation is that students who have more diverse peer groups will be more likely to have considered alternative occupational choices and will remain more flexible in their choices.

Degree of personal communication assertiveness. In order to assess the degree to which the individual student had assimilated the peer concept communication norm into his or her own interpersonal communication style, items measuring the student's self-perception of his or her

typical behavior in "general conversations with friends" were summed. This measure was expected to be related to the concept communication norm as well as to the masculinity dimension of the sex-role measure.

RESULTS

Sex-Role Norms

The relationships between the dimensions of the sex-role norms and the occupational decision-making variables are presented in Table 2. The masculinity dimension of the sex-role norm is positively related to seeking information about occupations but is negatively related to being flexible about the choice as was expected. The femininity dimension shows just the opposite pattern. Adopting feminine characteristics, regardless of sex, appears to decrease the importance of considering alternative occupational sources, but it increases the desire to remain flexible about whatever choice is made.

The patterns of relationships between the sex-role dimensions and future values suggest that gender has a contributory effect. For example, although the degree of femininity is positively associated with the value of being of service for both males and females, the relationship is much stronger for females. In general, however, masculinity appears to be related to wanting to have control and wanting to be seen as worthy of respect and competent. Femininity, on the other hand, is associated with wanting to be of service, wanting to fit in and wanting to gain rewards such as money and leisure time.

The relationships found for the traditionalness of occupational choice deserve further comment. Means of the degree of traditionalness of job choice by sex-role norm categories are presented in Table 3. From this table, it is clear that both male and female college students are most likely to choose occupations traditionally occupied by men, probably because these are the jobs that college is best equipped to

prepare them for--law, medicine, engineering, etc,). But even more interesting for this study is the finding here that the lowest degree of traditionalness is found in those categories where norm and gender conflict (i.e., masculine for the females and feminine for the males in the sample).

Specifically, males who have adopted characteristics of the feminine sex role and relatively fewer of the masculine sex role are the male group most likely to choose occupations with relatively more women in them.

Similarly, females who have adopted more masculine than feminine attributes are least likely to choose a typically female occupation. This suggests that adolescents are to some extent aware of the sex-typed nature of occupations and may be going through a process of matching their characteristics with those of the job, as it is currently characterized. It is also noteworthy here that the androgynous males and females fall in between these extreme groups. It appears that these adolescents may then, as expected, be less concerned with the sex-role related attributes of the occupations than those males and females who have accepted more sex-typed roles -- either gender consistent or inconsistent.

Interpersonal Communication Norms.

The zero-order correlations between the interpersonal communication measures and the occupational decision-making variables are presented in Table 4. From this table it appears that each kind of communication variable -- i.e., group communication norm (socio and concept), communication frequency (disagreement and discussion), and personal communication norm (assertiveness) -- contributes to the impetus to seek information about the occupational decision. Certainly it is probable that the reverse sequence is actually the case: gathering

information about the occupation leads to increased frequency of discussion and disagreement with peers regarding both occupations and sex roles. It is less likely, however, that information gathering leads to either the socio or concept norm development in the peer group or the development of personal communication assertiveness.

The personal communication assertiveness variable is strongly related to all the criterion variables. It was found to be related in the expected directions with each of the group communication norms (r=-.13 with socio; r= .26 with concept). This suggests that perhaps the group communication norms are being adopted by individuals in the group or, since causal sequence is again uncertain here, that adolescents are choosing peer groups with compatible communication norms.

One other finding within the choice variables is intriguing. There is a strong negative correlation (-.25) between frequency of discussion regarding occupations and sex-roles and the choice traditionalness criterion, but no relationship between the frequency of disagreement and traditionalness of choice. While the negative discussion--traditionalness relationship suggests confirmation of the prediction that deviancy leads to increased communication as is predicted by the original conformity studies--the lack of relationship with the disagreement variable poses the question of what form these discussions take.

Both from in-depth interviews[3] and the small group communication literature, a likely explanation emerges. The most common description of the friends the students designated was that they held views and occupational aspirations very similar to their own. A great deal of research investigating the formation of groups also suggests that perceived similarity is one of the most salient attributes in choosing friends and reference groups (see Newcomb, 1966, for example). This would suggest then that while students who are choosing nontraditional

occupations feel the need for increased discussion with their peers, these peers are also likely to be in similar positions and are thus unlikely to disagree with the individual regarding their choice.

Interesting patterns emerge from an examination of the relationship of the communication variables with the future value variables. It appears that the socio communication norm is related to values of being of service and fitting in, both of which follow from the conceptualization of this communication norm. Interpersonal assertiveness, on the other hand, is related to the values of feeling competent, having control and not worrying about fitting in, which also is to be expected.

In sum, these preliminary analyses suggest that both sex-role and interpersonal communication norms have an effect on -- or at the least, are related to--the process and outcome of occupational decision-making. In particular, the masculine sex role and interpersonal communication assertiveness are related to more information-seeking about the occupation, less flexibility, and the values of being competent and in control. The feminine sex role and the socio communication norm, on the other hand, are related to greater flexibility of choice and the values of being of service and fitting in.

Both Norm Sets

Turning to the question of how these sets of independent variables are related, the partial correlations between the sex-role norm measures and the interpersonal communication variables are presented in Table 5. They are presented controlling for both gender and year in school.

These correlations again show the predicted direction of relationship, in such a way that for both males and females, the higher degree of masculinity the less the degree of socio-orientation in the peer group. Similarly, the higher the degree of femininity, the greater

the degree of socio orientation. The results for the concept norm, although most are not statistically significant, show that there is at least a tendency toward the expected relationship of the greater the degree of masculinity, the greater the concept orientation, and the greater the degree of femininity, the less the degree of the concept orientation.

But the weak relationships with the concept-orientation variable that are found here and before suggest either that it is a poor measure of the norm or that the norm is inappropriate or nonexistent in college peer groups. Its consistent although weak pattern of relationships are congruent with hypotheses which suggests that the measure, rather than inappropriate, is just not tapping into all the components of this norm. Perhaps the measures of frequency of discussion and disagreement and interpersonal asertiveness would more appropriately be considered as aspects or results of the concept norm. They were found to be positively correlated with the present measure of the concept norm but were unrelated to the socio norm (not shown here). In Table 5, the frequency of discussion and assertiveness also show a stronger predicted relationship with the masculinity sex-role dimension than the concept-orientation measure does. Thus, it appears likely that along with stressing an examination of facts and the development of logical argument, peer groups which have adopted a concept norm also stress frequent discussion and argumentation, while socio-oriented groups do not appear to have standards regarding the frequency of interpersonal interaction.

If the domain of the concept orientation is broadened in this way, then the predictions of its relation to the sex-role norms appear more reasonable, since both the frequency of discussion and disagreement and assertiveness are associated with the degree of masculinity and are

not associated with the degree of femininity among females (except for a strong negative relationship between disagreement and femininity), all of which are congruent with predictions.

This table also shows, however, that gender still makes a difference. In each case of differences between the sexes, the stronger relationship is found for the sex which is being assessed in terms of the sex role generally associated with the opposite sex, i.e., gender incongruent sex role. For example, for males the degree of association between the feminine sex-role and the socio orientation is in the predicted direction but is considerably stronger than the same relationship for females (males: r=.22; females: r=.10). A similar pattern in terms of the greater strength of the relationship with the gender incongruent sex-role groups holds for the discussion-masculinity relationship; the disagreement-femininity, masculinity relationship; and similarly for the degree of assertiveness and socio orientation. This pattern suggests that students who have adopted sex roles considered incongruent with their gender are turning to their friends for support or at least more and stronger interaction. It may also be that a sort of convert phenomenon is occurring in such a way that as students begin to take on attributes of the other sex role, they also choose friends who will emphasize the communication style appropriate or congruent with the sex role. These two explanations are actually related, in that it is likely that as a person begins to adopt sex-deviant attributes he or she will seek a supportive environment and that will probably be one in which the communication structure is also congruent with the other attributes of the sex role. Unfortunately, this proposed sequence cannot be tested with these data. It remains an intriguing possibility.

In sum, there appears to be support for the assumption that the norms of interpersonal communication are, if not isomorphically related, at least relevant to the domain of sex role norms. It is also obvious that gender retains at least some of its importance beyond the broader sex role.

The Full Model; The Relative Influence of the Sex-Role Norms and the Communication Norms on Occupational Decision-Making.

Turning now to the final step in the argument, the individual influence of the sex-role and communication variables as opposed to the influence of the year in school and the gender of the adolescent will be examined. It was expected that, regardless of the continuing evidence that gender does make a difference in adolescent development, the sex-role norm would be found to explain a greater portion of the variance in how the various decisions of adolescence are resolved. It was also expected that although the communication and sex-role norms are seen as complementary roles, they are not the same construct, and both will explain different aspects of adolescent development. And third, it was expected that year in school, or the simple argument of maturation, would not account for as much variance in the measures of adolescent decision-making as the norm sets do.

These expectations were tested with a set of multivariate multiple regression analyses.[4] The individual standardized regression coefficients associated with each of the independent variables for each of the occupational decision-making criterion variables are presented in Table 6. The variance accounted for (R^2) by each of the independent variable sets controlling for the variance accounted for by the preceding set(s) of independent variables is also presented.

The beta weights shown in this table represent the relative influence of each of the independent variables because the effect of the other variables is controlled for. The most striking finding of this analysis strategy is that, as predicted, the sex-role norms account for a significant proportion of the explained variance in the dependent variables, even after controlling for the effect of gender. For example, even with the traditionalness of occupational choice measure which is strongly associated (beta: -.54) with gender, the sex-role norms add another two percent of explained variance. An examination of the individual beta weights for the sex-role norm factors shows that it is primarily the femininity factor (beta =.10) which contributes to the predictive ability of the sex-role norms.

It is also clear from Table 6 that the interpersonal communication variables add to the amount of variance explained by gender and sex-role norms. For each of the occupational decision-making dependent variables, the increment of variance accounted for by the communication variables is statistically significant. For example, although the sex-role norms account for five percent of explained variance in the degree of information seeking regarding the occupational choice, the communication variables (particularly frequency of discussion, beta=.10, and disagreement, beta = .09) account for another two percent of the variance.

CONCLUSIONS

This study was begun with an interest in how individuals make decisions about important life tasks. The specific questions addressed here were: In what way does interpersonal communication influence how decisions such as the choice of an occupation are made? And, second, can a reconceptualization of the nature of sex roles lead to a better understanding of the ubiquitous sex differences found in studies of human development?

Three general propositions were advanced and examined here. First, it was proposed that previously documented sex differences in the outcome of the decision-making process could better be understood in terms of the influence of adopting attributes of either the masculine or feminine sex role, or a combination of the roles, rather than in terms of gender per se. Second, it was proposed that interaction with peers or age-mates and the norms that govern that interaction will influence how decisions about occupations are made by adolescents. Third, these sets of norms were expected to be related in complementary ways with each other and the occupational decision-making process.

In general, these propositions were supported. Both communication patterns within the peer group and sex-role norms were found to be related to various aspects of occupational decision-making. Although gender does appear to have an independent direct effect on the outcome of the process, examination of the typical constellation of norms associated with each gender in most cases was found to be a more powerful predictor of differences in occupational decision-making. Support was also found for the proposition that the communication norms are complementary with the sex-role norms. The masculine sex-role norm appears to be related to a more assertive, information-oriented approach to interpersonal communication and the feminine sex role is related to a more deferential, socially-oriented interpersonal communication style. These norm sets also are related similarly to the adolescent occupational decision-making process and values variables as summarized previously.

It is clear that mature decision-making during adolescence, as defined here, is closely linked with the development of sex roles and interpersonal relationships. It is also clear that biological sex continues to serve as a major constraint in this process. There is a

strong tendency for individuals to adopt role attributes congruent with their gender. Although it appears that attributes associated with the feminine sex role are beneficial in terms of encouraging flexibility of choices and in emphasizing some worthwhile values such as desiring to be of service to other people and the community, it is also apparent that attributes of the masuline sex role may be necessary for most of the other aspects of development, namely, considering alternatives in a reasoned way, narrowing and making a commitment to particular choices and developing values of being in control. By adherence to aspects of only the gender-congruent sex-role, individuals may be constrained from developing in important ways.

The adoption of sex-deviant attributes is not easy, however. Can women be encouraged to assimilate those parts of the masculine sex-role which will enable them to accept responsibility for their futures? Can men be encouraged to take on those typically female attributes which will enable them to be nurturant and more changeable? Although this study suggests that friendship groups and their patterns of interaction can serve to reinforce tendencies associated with sex-role norms or as a catalyst for change or divergence away from the typical behavior, the data are inadequate for a comprehensive answer as to exactly how this process works. Do adolescents choose groups which serve to reinforce their existing sex-roles configuration? And if they do, can these groups help to change the configuration or do they simply reinforce the existing tendencies? It is interesting to note that one of the primary functions of women's consciousness-raising groups has been to encourage a more assertive communication style, with the apparent assumption that the adoption of such a style will be related to other changes in the lives of women typically constrained by the feminine sex role. Perhaps similar interpersonal "training" is necessary for men to begin to

adopt styles typically associated with the feminine sex role. It may be that only through this kind of interpersonal interaction can the existing sex-role constraints be challenged and modified. Continued study of the role of interpersonal communication in this process appears justified.

NOTES

1. For a more comprehensive review of this line of research, see Henley and Thorne (1975). Piliavin (1976) also provides evidence that males and females are likely to communicate differently in task-oriented groups. She and Martin (1978) found that males contribute more task behavior and females more socio-emotional input, a la Bales' communication category scheme, in group discussion. Although the sex-role orientation of the participants was not measured, the sex differences suggest that even stronger differences might be found if these norms are considered.

2. Since the major interest of the study was the nature of adolescent development, eight respondents who were over 24 years old were eliminated from the sample. One other respondent was eliminated later from the analysis because he did not provide sufficient information regarding the nature of his interaction with his peer group. The distribution of the sample by year in school and gender is presented below.

Frequency of Respondents by Year in School and Gender

	Year in School				
Gender	Freshmen	Sophomores	Juniors	Seniors	Total
Male	68	82	95	65	310
Female	72	61	79	66	278
Total	140	143	174	131	588

According to 1975 enrollment statistics for the university as a whole, this sample distribution is an accurate representation of the proportions of each gender and year in school, although female freshmen and both male and female juniors are slightly over-represented. These discrepancies are not expected to affect the conclusions of this study. Comparisons with national norms show that the students at this university are on the average similar to their counterparts at other public universities. Possible differences in environment and attitudes of the students in the sample and those on other campuses are not considered critical problems here because the study is concerned primarily with the relationships of characteristics within and between individuals and groups of students rather than with a description of the college population. It is unlikely that these patterns would be found to be very much different in other college environments. At the time of study, however, attitudes toward women and their roles were continuing to change, both in the general culture and among the college population. These changing attitudes and expectations regarding sex roles may indeed have had an influence on the outcome of this study and its applicability to other time periods. Nevertheless, the theoretical linkages regarding the influence of sex-role and communication norms on adolescent development should prove equally valid, regardless of the content of sex-role norms at a particular point in time.

3. A subgroup (N=32) of the panel was interviewed in the Spring of 1976 in an open-ended interview situation in order to gain better understanding

of the responses elicited in the structured interview schedule they had been administered the previous fall. These interviews were tape recorded and transcribed.

4. Initially, the multivariate analyses were examined to determine if the set of independent variables (year in school, gender, sex-role and communication norms and the other communication variables) accounted for a significant proportion of the variance in the occupational decision-making criterion variables. These tests showed that the independent variables did account for a significant proportion of the variance for each set of dependent variables. An examination of the univariate regression models showed, however, that the year in school variable and the communication norm factors (socio and concept) did not contribute significantly to the model. These variables were consequently dropped from the model in the interest of accounting for the most variance with the smallest number of predictor variables.

TABLE 1: Factor Loadings of Occupational Values Variables

Variables	Factors				
	Competency	Service	Control	Fitting In	Rewards
e. doing something better than others	.795	-.127	-.146	-.110	.003
f. doing something with talents	.355	.260	-.171	.219	.302
h. others recognize abilities	.749	-.031	.082	-.179	.159
i. others respect	.577	.227	.008	-.296	.185
b. service to community	.028	.762	-.198	-.001	-.079
d. needed by childred	.067	.636	.164	-.148	-.058
o. helping other people	-.084	.798	-.014	-.037	.112
a. freedom to make own decisions	.083	.206	-.487	.066	.417
c. control over situations	.270	.176	-.534	.118	.195
j. not worrying about competence	.026	.101	.060	-.653	.081
k. doing something different	-.242	-.052	-.196	-.538	.080
l. fitting in	.167	.102	.095	-.757	.137
g. leisure time	.088	.007	-.078	-.142	.750
m. excitement and variety	.027	-.022	-.288	-.307	.635
n. enough money	.310	-.128	.272	-.061	.607

NOTE: Factors were formed using principle components analysis with varimax rotation. Variables which load above .350 were considered for inclusion on that factor. Decisions regarding inclusion when the variable loaded above .350 on two factors were made on theoretical grounds.

TABLE 2: Zero-Order Correlations Between Sex-Role Norms and Occupational Decision-Making Criterion Variables by Gender

	Degree of Maculinity			Degree of Femininity		
	Male	Female	Total	Male	Female	Total
Choice:						
Information	.21[b]	.23[b]	.20[b]	.04	.05	.06
Flexibility	-.16[b]	-.18[b]	-.18[b]	.15[b]	.09	.13[b]
Traditionalness	.06	-.15[b]	.06	.02	.17[b]	-.10[a]
Values:						
Competency	.14[a]	.16[b]	.14[b]	.15[b]	.08	.12[b]
Service	.12[a]	.04	.05	.12[a]	.40[b]	.36[b]
Control	.17[b]	.29[b]	.21[b]	.17[b]	.05	.08[a]
Fitting in	-.08	-.01	-.05	-.08	.13[a]	.14[b]
Reward	-.01	.19[b]	.07	-.01	.20[b]	.12[b]

NOTE: The cell entries (pearson product moment correlation coefficients) are significant at the following levels: a: $p \leq .05$; b: $p \leq .01$, one-tailed test of significance. Sample size on which the correlations are based varies from 300 to 310 for males and from 273 to 278 for females due to missing data.

TABLE 3: Means and Standard Deviations of Traditionalness of Occupational Choice by Sex-Role Norm Categories

		Sex-Role Norm Category				
		Undiff.	Femin.	Mascul.	Androg.	
	Masculinity	Low	Low	High	High	Total
	Femininity	Low	High	Low	High	
Males	Mean	81.37	76.00	79.82	78.96	79.49
	(SDV)	(17.59)	(21.66)	(21.24)	(20.92)	(20.45)
	N	60	29	116	95	300
Females	Mean	41.36	55.85	37.70	44.48	47.22
	(SDV)	(30.01)	(31.15)	(29.03)	(32.35)	(31.69)
	N	36	103	46	88	273

NOTE: Cases missing on the occupational choice variables were deleted from this analysis (N=15).

TABLE 4: Zero-order Correlations Between Interpersonal Communication Variables and Occupational Decision-Making Criterion Variables

	Communication Variables						
	Socio Orien.	Concept Orien.	Disagr-eement	Discus-sion	Female Divers.	Aspir. Divers.	Assert-iveness
Choice:							
Information	.12[b]	.09[a]	.12[b]	.16[b]	.09[a]	-.03	.11[b]
Flexibility	.10[a]	.01	.01	.05	-.04	-.02	-.18[b]
Tradition-alness	.06	.05	.00	-.25[b]	.03	.14[b]	-.12[b]
Values:							
Competency	.06	.05	.03	.09	-.06	-.05	.08[a]
Service	.16[b]	.01	.03	.15[b]	.00	-.04	.04
Control	-.05	.06	-.02	.13[b]	-.01	-.08	.22[b]
Fitting in	.17[b]	-.02	.04	.01	-.02	-.04	-.09[a]
Reward	.06	.01	-.05	.08[a]	-.06	-.08[a]	.06

NOTE: a. : $p \leq .05$; b: $p \leq .01$, one-tailed test of significance. The sample size on which the correlations are based is 588, except for the Choice Traditionalness variable and the Values factors. For these variables the N=573 and 587, due to missing data.

TABLE 5: Partial Correlation Coefficients Between Sex-Role Norms and Communication Variables by Gender Controlling for Year in School

Communication Variable	Degree of Masculinity			Degree of Femininity		
	Male	Female	Total	Male	Female	Total
Socio Orientation	-.09[b]	-.19[b]	-.15[b]	.22[b]	.10[a]	.17[b]
Concept Orientation	.02	.10[a]	.09[a]	.03	-.01	-.04
Discussion	.11[a]	.21[b]	.06	.07	.05	.18[b]
Disagreement	-.02	.11[a]	.05	.05	-.15[b]	-.05
Female Diversity	.07	.08	.08[a]	.06	-.06	-.01
Aspiration Diversity	-.02	-.02	-.01	-.06	.11[a]	.01
Assertiveness	.34[b]	.48[b]	.38[b]	-.05	.00	.00
(N)	(310)	(278)	(588)	(310)	(278)	(588)

NOTE: a: $p \leq .05$; b: $p \leq .01$, one-tailed test of significance. Each correlation (Pearson product moment) is the degree of relationship after controlling for the effect of year in school.

TABLE 6: Standardized Regression Coefficients of Occupational Decision-Making Variables by Gender, Sex-Role Norms and Communication Variables

Occupational Decision-Making Variables	Gender	(R^2)	Sex-Role Norms: Feminine	Sex-Role Norms: Masculine	Cumulative (R^2)	Communication Variables: Feminine Diversity	Aspiration Diversity	Disagreement	Discussion	Assertiveness	Cum. (R^2)
Choice:											
Information	.05	(-)	.03	.20[c]	(.05)[b]	.06	-.02	.09[b]	.10[b]	.00	(.08)[c]
Flexibility	-.04	(-)	.13[c]	-.15[c]	(.05)[b]	-.03	-.03	.01	.09[b]	-.15[c]	(.08)[c]
Traditionalness	-.54[c]	(.27)	.10[c]	-.03	(.29)[b]	.01	.13[c]	-.02	-.04	-.05	(.31)[c]
Values:											
Competency	.01	(-)	.10[b]	.14[c]	(.03)[b]	-.07[a]	-.04	.02	.08[a]	.01	(.05)[a]
Service	.00	(-)	.35[c]	.06	(.13)[b]	-.02	-.04	.04	.08[a]	.00	(.14)[b]
Control	.03	(-)	.06	.15[c]	(.05)[b]	.00	-.07	-.04	.07[a]	.13[c]	(.08)[c]
Fitting in	-.03	(-)	.15[c]	-.01	(.02)[b]	-.01	-.04	.06	.02	-.09[a]	(.03)[b]
Rewards	.03	(.01)	.11[b]	.06	(.02)[a]	-.05	-.07	-.02	.06	.02	(.04)[c]
Number of variables in model		(1)			(3)						(8)

NOTE: N=571 due to missing data on some of the dependent variables. a: $p \leq .10$; b: $p \leq .05$; c: $p \leq .01$. The significance level for individual standardized regression coefficients is the test for the degree of relationship between the two variables controlling for all other independent variables in the model. The R^2 is the proportion of variance accounted for each block of variables. The significance level is the test (Incremental F-Test) of the extent to which each block of variables accounts for a significantly greater portion of variance after that of the preceding block(s) of variables has been accounted for.

REFERENCES

Alexander, C. N., and Campbell, E.Z. Peer influences on adolescent educational aspirations and attainments. American Sociological Review, 1964, 29, 568-675.

Alper, T.G. The relationship between role orientation and achievement motivation in college women. Journal of Personality, 1973, 41, 9-31.

_____ Achievement motivation in college women: A now-you-see-it-now-you-don't phenomenon. American Psychologist, 1974, 29, 194-202.

Angrist, S.S., and Almquist, E.M. Careers and Contingencies. New York: Dunellen, 1975.

Asch, S. The doctrine of suggestion, prestige, and imitation in social psychology. Psychological Review, 1948, 55, 250-276.

Baur, E.J. Student peer groups and academic development. College Student Survey, 1967, 1, 22-31.

Baumrind, D. Early socialization and adolescent competence. In S.S. Dragastin and G.H. Elder, Jr. (Eds.), Adolescence in the Life Cycle. Washington, D.C.: Hemisphere Publishing Co.; 1975.

Becker, L.B. Predictors of change in religious beliefs and behaviors during college. Sociological Analysis, 1977, 38, 65-74.

Bell, L. and Ericksen, L. Family process and child development: some preliminary findings. Presented to American Psychological Association, Washington, D.C., 1976.

Bem, S. L. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42, 155-162.

_____ Sex role adaptability: One consequence of psychological andogyny. Journal of Personality and Social Psychology, 1975, 31, 634-643.

_____ Probing the promise of androgyny. In A.G. Kaplan and J.P. Bean (Eds.), Beyond Sex-Role Stereotypes: Readings Toward a Psychology of Androgyny. Boston: Little, Brown, 1976, Pp. 48-62.

_____ and Lenney, E. Sex typing and the avoidance of cross-sex behavior. Journal of Personality and Social Psychology, 1976, 33, 48-54.

Berzins, J.I. New perspectives on sex roles and personality dimensions. Paper presented to the American Psychological Association, Chicago, Ill., 1975.

_____, Welling, M., and Wetter, R.E. Androgynous vs. traditional sex roles and the interpersonal behavior circle. Paper presented to the American Psychological Association, Washington, D.C., 1976.

Bielby, D.D. Factors affecting career commitment of female college graduates: 1961-1968. Unpublished Ph.D. dissertation, University of Winconsin-Madison, 1976.

Bowerman, C.E., and Kinch, J.W. Changes in family and peer orientation of children between the 4th. and 10th. grade. Social Forces, 1969, 37, 206-11.

Cartwright, D., and Zander, A. (Eds.) Group Dynamics: Research and Theory (3rd. Edition). New York: Harper and Row, 1968.

Cosentino, F., and Heilburn, A.B. Anxiety correlates of sex-role identity in college students. Psychological Reports, 1964, 14, 729-730.

Davis, J.A. The campus as a frog pond: An application of the theory of a relative deprivation to career decisions of college men. American Journal of Sociology, 1966, 72, 17-31.

Duncan, O.D., Haller, A.O., and Portes, A. Peer influences on aspirations: A reinterpretation. American Journal of Sociology, 1968, 74, 119-137.

Eisenstein, H., and Sacks, S.R. Women in search of autonomy: an action design. Social Change, 1975, 5, 4-6.

Eman, V.A., and Morse, B.W. A multivariate analysis of the relationship between androgyny and self-esteem, self-acceptance and acceptance of others. Presented to the Speech Communication Association, Washington, D.C., 1977.

Erikson, E.H. Identity: Youth and Crisis, New York: Norton, 1968.

Feldman, K.A., and Newcomb, T.M. The Impact of College on Students (Vol. 1). San Francisco: Jossey-Bass, 1969.

Fitzgerald, L.G. Sex, occupation membership, and the measurement of psychological androgyny. Presented to the American Psychological Association, Washington, D.C., 1977.

Gall, M.D. The relationship between masculinity and femininity and manifest anciety. Journal of Clinical Psychology, 1969, 25, 294-295.

Ginzberg, E., Ginsburg, S.W., Axelrad, S., and Herma, J.L. Occupational Choice: An Approach to a General Theory. New York: Columbia University Press, 1951.

Gove, W.R., and Tudor, J.F. Adult sex roles and mental illness. In J. Huber (Ed.), Changing Women in a Changing Society. Chicago: University of Chicago Press, 1973, Pp. 50-73.

Greenblatt, L., Hasenauer, J.E., and Freimuth, V.S. The effect of sex typing and androgyny on two communication variables: self-disclosure and communication apprehension. Presented to the Speech Communication Association, Washington, D.C., 1977.

Haller, A., and Butterworth, C.E. Peer influences on levels of occupational and educational aspirations. Social Forces, 1960, 38, 389-395.

Henley, N., and Thorne, B. Sex Differences in language, speech, and nonverbal communication: An annotated bibliography. In B. Thorne and N. Henlry (Eds.), Language and Sex: Difference and Dominance. Rowley, Mass.: Newbury House, 1975.

Jessor, S. L., and Jessor, R. Transition for virginity to non-virginity among youth: A social-psychological study over time. Developmental Psychology, 1975, 11, 473-484.

Kandel, D.B., Kessler, R.C., and Margulies, R.Z. Antecedents of adolescent initiation into stages of drug use: a developmental analysis. Journal of Youth and Adolescence. 1978, 7, 13-40.

Leary, T. Interpersonal Diagnosis of Personality. New York: Ronald Press, 1957.

Lewin, K., Lippitt, R., and White, R. K. Patterns of aggressive behavior in experimentally created social climates.' Journal of Social Psychology, 1939, 10, 271-299.

Marcia, J.E. Development and validation of ego identity status. Journal of Personality and Social Psychology, 1966, 3, 551-558.

McLeod, J.M., and Chaffee, S.H. The construction of social reality. in J.T. Tedeschi (Ed.), The Social Influence Process. Chicago: Aldine-Atherton, 1972. Pp. 50-99.

Montgomery, C.L., and Burgoon, M. An experimental study of the intereactive effects of androgyny and sex on attitude change. Communication Monographs, 1977, 44, 130-135.

Murphy, L.B., and Moriarty, A. Vulnerability, Coping and Growth. New Haven: Yale University Press, 1976.

Mussen, P.H. Long-term consequences of masculinity of interests in adolescence. Journal of Consulting Psychology, 1962, 26, 435-440.

Newcomb, T.M. The general nature of peer group influence. In T.M. Newcomb and E.K. Wilson (Eds.) College Peer Groups. Chicago: Aldine, 1966. Pp. 2-16.

Patton, B.R., Jasnoski, M., and Skerchock, L. Communication implications of androgyny. Paper presented to Speech Communication Association, Washington, D.C., 1977.

Piliavin, J.A. On feminine self-presentation in groups. In J.I. Roberts (Ed.), Beyond Intellectual Sexism. New York: David McKay, 1976. Pp 138-159.

Piliavin,J.A. and Martin, R.R., The effects of the sex composition of groups on style of social interaction. Sex Roles, 1978, 4, 281-96.

Pinter, R. and Fortano, G. Some measures of dominance in college women. Journal of Social Psychology, 1944, 19, 303-315.

Rossi, P.H. Research strategies in measuring peer group influence. In T. Newcomb and E.K. Wilson (Eds.), College Peer Groups. Chicago: Aldine, 1966, Pp. 190-214.

Sacks, S.R. and Eisenstein, H. Feminism and psychological antonomy: a study in dicision-making. Presented to the American Psychological Association, Washington, D.C. 1976.

Secord, P.F., and Bachman, C.W. Interpersonal congruency, perceived similarity, and friendship. Sociometry, 1964, 27, 115-127.

Sherif, M The Psychology of Social Norms. New York: Harper, 1936.

Tangri, S. Determinats of occupational role innovation among college women. Journal of Social Issues, 1972, 28, 177-199.

Teevan, J. Reference groups and premarital sexual behavior. Journal of Marriage and the Family, 1972, 34, 288-292.

Wallace, W.L. Peer influences and undergraduates' aspirations for graduate study. Sociology of Education, 1965, 38, 375-392.

Webb, A.P. Sex-role preferences and adjustment in early adolescents. Child Development, 1963, 34, 609-618.

Welling, M.A. A new androgyny measure derived from the Personality Research Form. Presented to American Psychological Association, Chicago, Ill., 1975.

Wetter, R.E. Levels of self-esteem associated with four sex-role categories. Presented to American Psychological Association, Chicago, Ill., 1975.

Woefel, J. Significant others and their role relationships to students in a high school population. Rural Scoiology, 1972, 37, 86-97.

_____, and Haller, A.O. Significant others, the self-reflective act and the attitude formation process. American Sociological Review, 1971, 36, 74-87.

Woods, M.M. The relationship of sex role categories to auto-biographical factors. Paper presented to American Psychological Association, Chicago, 1975.